Chapter I

NUCLEAR, BIOLOGICAL, AND CHEMICAL ASPECTS OF CONSEQUENCE MANAGEMENT

1. Background

a. Consequence management is a comprehensive US counterproliferation strategy that consists of a set of mutually supporting core capabilities. These core capabilities are counterforce operations, active and passive defense, and CM operations. As part of this strategy, CM (in the context of the Federal Response Plan [FRP]) includes measures to protect public health and safety; restore essential government services; and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism. Conversely, within the framework of DOD Directive (DODD) 3025.15, CM is defined as "those essential services and activities required to manage and mitigate problems resulting from disasters and catastrophes." Such services and activities may include transportation, communications, public works and engineering, fire fighting, information planning, mass care, resources support, health and medical services, urban search and rescue, hazardous materials, food, and energy. As part of an overall federal response to CM, DOD assets could be notified by the NCA to provide support to a lead federal agency (LFA) such as FEMA or the Department of State (DOS) (depending on the location). Specifically, within the context of this MTTP manual, the discussion will focus on CM actions taken in response to a terrorist NBC incident/accident.

b. Interagency involvement is one of the fundamental aspects of CM. DOD planners understand that other federal agencies will likely have the lead role, and there must be an understanding of their functions and terms of reference (i.e., understanding the civilian incident command system [ICS] and definitions for terms such as CM). For example, the definitions for CM will vary depending on the source document (i.e., FRP versus DODD 3025.15).

NOTE: Presidential Decision Directive (PDD) 39 defines the LFA as the federal department or agency assigned lead responsibility to manage and coordinate a specific function, crisis, or CM.

c. US forces may be required to support civil authorities in domestic or foreign situations/incidents due to deliberate or unintentional use of NBC weapons or materials. Commanders must prepare an appropriate response to meet the full spectrum of NBC incidents, both deliberate and unintentional, to support civilian, HN, or military installation recovery. Support to civil authorities from DOD would be according to applicable federal emergency plans and would likely require coordination and cooperation with agencies, organizations, and individuals outside the military's chain of command or direct control. A joint force commander (JFC)/JTF may be in a supporting role to the US ambassador and his Country Team or to a LFA such as the US FEMA. The JTF's task organization will likely be a composite organization of conventional forces (i.e., security, support elements, etc.) and units with specialized capabilities such as explosive-ordnance-disposal or other special-response teams.

(1) Support Role (Foreign). The primary responsibility for managing and mitigating the effects of a foreign incident resides with a HN government. If the HN government would request US assistance, DOS serves as the LFA. DOD support could be part of the US response and would be coordinated through the appropriate chief of mission (COM) and the country team. DOD assets would be under the command of the applicable geographic combatant commander, and all US-government support would be coordinated by the resident COM and the country team.

(2) Support Role (Domestic). As directed in PDD-39, FEMA is the LFA for CM. DOD support to FEMA (as the LFA for CM) could be to render "technical-operations" support to identify, assess, dismantle, transfer, and dispose of a contaminant or conduct decontamination operations. For example, decontamination operations may be conducted by military units to support casualty decontamination or for support of long-term restoration operations. Additionally, an incident involving an NBC environment would likely require a response according to a specific federal emergency operations plan (OPLAN) (FRP, National Contingency Plan [NCP], Federal Radiological Emergency Response Plan [FRERP], etc.). These plans designate a LFA to coordinate the federal response. The type of emergency determines the LFA. In general, an LFA establishes operational structures and procedures to assemble and work with agencies providing direct support to the LFA. Appendix I shows the LFA for each of the designated emergency support functions (ESFs) in the FRP. In only one case (Public Works and Engineering) is DOD (Army Corps of Engineers) the LFA. In all other ESFs, DOD provides support but does not lead.

d. For DOD's support role (domestic or foreign), JFCs conduct planning to meet the various NBC and radiological threats. The actions of the JFC could include measures to anticipate, prevent, and resolve a terrorist threat or incident.

2. Environment

a. Potential Adversaries.

(1) Potential adversaries who might possess NBC capabilities include nation-state and nonstate groups. Nation-state and some nonstate groups have traditional territorial and population bases of power. Other nonstate groups rely on the shared interests and capabilities of members and are relatively unfettered either by geographic and political boundaries or the international norms of state conduct. Nonstate groups can also include terrorist (see Figure I-1); guerrilla and criminal organizations; and individuals with the motivation and resources to hold US interests, forces, allies, designated friends, and nonstate actors at risk. Nation-states may threaten to use or use NBC capabilities against nonstate groups within their country. In 1988, shortly after the first Gulf War, Iraq used chemical weapons against the Kurds, a minority ethnic group in Iraq seeking autonomy. Shortly after the second Gulf War, Iraq threatened to use chemical weapons against rebellious Kurds and Shiite Moslems. Only through the threat of US military intervention was Iraq deterred from carrying out its threat. In the event of a future incident, the US needs the option to be prepared to conduct foreign CM in a nonpermissive environment.

(2) Regional powers may use NBC weapons for coercion or aggression against US allies or other friendly states. Armed adversaries may also directly or indirectly threaten US forces, citizens, and other interests. Transnational and nonstate groups with NBC capabilities may pose similar threats abroad and to the US homeland. States with these capabilities may succumb to internal turmoil that creates the possibility of NBC or radiological dispersal device (RDD) events within their territory or smuggling of NBC materials or weapons to other states or nonstate groups.

(3) Civilian populations, critical infrastructures, and unwarned and unprotected military forces are especially vulnerable. Joint and multinational operations, in areas where indigenous friendly forces and populations have less protection than US forces, are similarly vulnerable. Adversaries may employ NBC weapons to assail these vulnerabilities and to seek to overcome the advantages of the US operational method—superior leader development and training, technology, combat doctrine, and high operating tempo. In so doing, adversaries may believe they can dictate the terms of the conflict to the disadvantage of the US.

(4) An adversary may have incentives to employ or threaten to employ NBC weapons, thus seeking to deter US intervention and attempting to gain an early tactical advantage. During a MOOTW situation, an adversary could employ NBC weapons to prevent, limit, or reverse US involvement and fracture coalition public support and unity. Late in a conflict or as a last resort, an adversary could employ or threaten to employ NBC weapons to avoid defeat and influence the terms of conflict termination.

(5) Adversaries may deliver weapons by conventional delivery means, by special-operations forces (SOF), or through the use of terrorists. Potential adversary objectives and targets could include civilian populations and infrastructures, as well as military forces and facilities, home and abroad. Clandestine attacks could seek to cause terror among the populace, alter the political objectives of the US and its coalition partners, and take revenge against US and coalition actions. Adversaries with long-range delivery means could seek to deny the US forces a sanctuary, hold civilian populations and infrastructures hostage, and retaliate directly against the US and coalition partners distant from the area of conflict.

(6) The threat for foreign and domestic operations is increasingly nonlinear and unpredictable. In the event that DOD is required to support CM, timely information and intelligence is critical. Given the case of the Tokyo Subway incident (see Figure I-1) and other terrorist incidents, procedures must be in place to detect, identify, and mitigate the effects of these types of weapons. Terrorist threats must be recognized as legitimate and planned for accordingly. The threat could include conventional explosive devices with NBC materials.

DEATH IN THE SUBWAY

Until last week, Kasumasa Takahashi was just another faceless Japanese bureaucrat, the deputy stationmaster at Kasumigaseki subway station in central Tokyo. The blue-suited mandarins of the nation's key ministries who poured from the commuter trains every morning were his customers: Takahashi took their tickets, pointed them up the proper escalators and kept the sprawling station - where three major subway lines converge - so clean that the white gloves he wore on the job were seldom soiled.

Then last Monday, suddenly and quietly, the 50-year old career subway man became a hero. The 8:14 a.m. Chiyoda Line train bound for Yoyogi-Uehara pulled in on track 5 with an obvious problem. Passengers were spilling out of its first car with tears streaming, choking, some foaming at the mouth. Takashashi walked into the car, picked up a foul-smelling, 6-inch high package wrapped in newspaper and carried it onto the platform. Drops began leaking from it onto the platform tiles, and Takashashi started to mop them up with his handkerchief. Then, he collapsed and lost consciousness. The man whose son and brother were also subway workers never came out of the coma, and he died later that day in a nearby hospital.

The poisonous nerve gas that killed Takashashi and nine other Japanese and injured more than 5,000 was Sarin (GB), invented by the Nazis and applied with deadly efficiency, suggested Japanese authorities, by members of Aum Shrinrikyo, an apocalyptic religious sect. In the following days, gas-masked police, accompanied by a few Japanese military personnel and several caged canaries used to detect deadly fumes, raided two dozen sites throughout Japan where sect members lived. They made several arrests and seized bags and barrels of chemicals - tons of toxic material in all - which authorities said could be used to make Sarin.

For the rest of the world, the deadly Tokyo attack was yet another shocking reminder of how vulnerable most societies are to terrorism. The weapon wasn't an exotic nuclear device, but a relatively unsophisticated mixture of chemical agents, most of them readily available. And the alleged perpetrator was not a distant hostile government closely watched by intelligence agencies but a shadowy, global and unpredictable religious band.

SOURCE: Mike Tharp, *U.S. New & World Report,* April 3, 1995

Figure I-1. Tokyo Nerve-Agent Incident

b. Use of NBC Materials.

(1) Nuclear-Materials Incident. An adversary could use nuclear materials to cause blast, thermal, radioactive, and/or electromagnetic effects on personnel or property. The shock waves and high pressures cause damage; thermal radiation can cause burns and secondary fires; and ionizing radiation is likely to be the main cause of casualties.

(2) Biological Incident. A biological incident may result from any device or vector that intentionally uses or carries bacteria, viruses, or toxins to cause mass casualties. The means of dissemination of these agents encompass four primary methods of entry into the body: inhalation, ingestion, absorption, and injection. While inhalation and ingestion are the most common methods of infection, casualties resulting from absorption or injection are also possible. Many of these agents, such as cholera or anthrax, are easily adapted for use as a terrorist weapon; only the biological agent and an effective dispersal system are required. Some dispersal methods, such as using an aerosol spray, can spread agents over vast areas and affect large numbers of people. Biological agents typically have a delayed onset of signs or symptoms, aiding migration, hampering identification, and complicating decontamination. As such, response forces may inadvertently spread the agent and escalate the incident rather than contain it.

(3) Chemical Incident. Chemical incidents can be caused by any device that uses nerve, blister, blood, choking, or irritating chemical agents, or TIC, to produce mass casualties. Chemical agents typically are effective via inhalation, ingestion, or absorption (injection is also possible but less likely).

c. NBC Materials Incidents/Accidents. Large-scale challenges can arise from incidents/accidents involving the release of NBC materials. In the following paragraphs are brief descriptions of incidents that occurred in India, the former Soviet Union, and Iraq.

(1) Bhopal Incident. To illustrate the potential for disaster from an inadvertent incident associated with a TIC, the Bhopal Indian Incident is a classic study. On December 3, 1984, over 40 tons of methyl isocynate (MIC) and hydrogen cyanide leaked from a pesticide plant at the northern end of Bhopal into the surrounding city of one million people. The leak was caused by a series of operator errors. These chemicals are but two of the many extremely TIC that are manufactured and stored in facilities across the world. Bhopal has been called the “Hiroshima of the Chemical Industry.” According to the Bhopal Peoples Health and Documentation Clinic (BPHDC), 8,000 people were killed in its immediate aftermath and over 500,000 people suffered from injuries.

(2) Sverdlovsk Incident. In April 1979 at a Soviet military facility about two and one-half miles from Sverdlovsk, USSR (now Ekaterinburg), an accidental release of biological material occurred. A few days later, some of the townspeople started developing fevers, chills, and other symptoms and some were complaining about chest pains. As time passed, more individuals started displaying these same symptoms and some of the earlier victims died. Attending medical personnel diagnosed this occurrence as an outbreak of anthrax. Eventually, 77 cases of anthrax were reported, with 66 deaths resulting. The autopsies listed anthrax as the cause of death. In 1992, President Boris Yeltsin admitted that the nearby military installation had been part of an offensive biological weapon program and that an epidemic had been caused by an unintentional release of 1 to 2 kilograms of anthrax spores during the process of uploading artillery shells.

(3) The Chernobyl Disaster. On April 26, 1986 at 1:23 a.m., local time, technicians at the Chernobyl Power Plant in Ukraine (former Soviet Union) allowed the power in the fourth reactor to fall to low levels as part of a controlled experiment, which went wrong. The reactor overheated causing a meltdown of the core. Two explosions blew the top off the reactor building releasing clouds of deadly radioactive material in the atmosphere for over 10 days. The people of Chernobyl were exposed to radioactivity 100 times greater than the Hiroshima bomb. The people of northern Europe were exposed to clouds of radioactive material being blown northward through the sky. Seventy percent of the radiation is estimated to have fallen on Belarus. It is estimated that over 15 million people have been affected by the disaster in some way. More than 600,000 people were involved with the cleanup—many of whom are now dead or sick. The health impact of the Chernobyl accident can be classified in terms of acute health effects and of late health effects; moreover, there are also psychological effects, which can influence health. All the acute health effects occurred among the personnel of the plant or in those persons brought in for fire-fighting and immediate clean-up operations. Two deaths were immediately associated with the accident, one person was killed by the explosion and another suffered a coronary thrombosis. A third person died early the morning of the accident from thermal burns. Twenty-eight other persons died later in the treatment centers, bringing the total to 31 deaths in the first weeks after the accident. All symptomatic exposed persons from the site were placed in hospitals. Of the total 499 persons admitted for observation, 237 of these were initially diagnosed as suffering from acute radiation syndrome and most of these were hospitalized in the first 24 hours. The severity and rapidity of onset of their symptoms depended on their dose. The initial early signs and symptoms of radiation sickness from high doses included diarrhea, vomiting, fever and erythema. In the highest exposure group, the first reaction was usually vomiting, occurring within 15 to 30 minutes of exposure. These patients were desperately ill; fever and intoxication as well as diarrhea and vomiting were prominent features. Mucous membranes were severely affected—becoming swollen, dry, and ulcerated—making breathing and swallowing extremely painful and difficult. Extensive thermal and beta-radiation burns often complicated the illness. Within the first two weeks, white blood cells and platelets fell dramatically, indicating a very high dose of radiation. This compromised the production of blood cells in the bone marrow, making it virtually impossible for the patients to fight infection or to retain the natural clotting activity of the blood. Almost all the patients with such high doses died (20 of 21) in spite of the intensive specialized medical treatment provided. At lower exposures, the symptoms, signs and laboratory findings improved. Vomiting began later, platelet and white blood-cell counts did not drop so precipitously, and the fever and toxemia were less pronounced. Beta-radiation burns to the skin were a major complicating factor, and mucous-membrane damage was difficult to treat. However, survival improved markedly at lower doses, so that no early deaths were noted in the less-exposure group.

(4) Kurdish Incident. In 1988, following the Iran-Iraq War, Saddam Hussein deliberately employed chemical weapons against the Kurdish ethnic group in Iraq. In September 1988, two congressional staffers from the US Senate Foreign Relations Committee conducted interviews at five refugee camps in southeastern Turkey. The following is an excerpt of testimony related to the incident: “At 6:00 a.m. on August 25, 1988, eight planes flew over our village. All eight dropped weapons … when they dropped the bombs, a big sound did not come out -- just a yellowish color and a kind of garlic smell. The people awoke, and some of them fainted. Those who poured water on themselves lived; those who could not reach water died. I went to the river. Almost 50 women died. Some

died who went to help their families. Seventy-five people died." In the entire area, thousands of people may have perished. Immediately after the chemical warfare (CW) attack, 60,000 to 100,000 Kurds fled across the Iraq-Turkish border. Among them was Dr. Yossef Hamed, a Kurdish physician. The following comment describes his experience: "People died under my hands. It took us one week to walk here. I think in that time I saw 200 people die from chemical weapons. There are thousands dead . . . At Ismasewa, three people were suffering from what I believe was nerve gas. They were hallucinating and could not move in a straight line. They vomited continuously and had severe spasms of the body."

d. Summary. There are critical points to consider in these types of operations. They can occur in a domestic or foreign area in an operation other than war; may involve deliberate or inadvertent intent and will likely occur without advance notice; and may in the case of advertent use in a foreign area, require forced entry.

3. Military Role (Domestic Response)

This section briefly addresses how the federal government might respond in the event of an incident with DOD assets such as the JTF-CS. The military's role in domestic support operations (DSO) and for support of crisis management and CM is also briefly discussed.

a. Introduction. The military's role in domestic emergencies is well defined and, by law, is limited in scope and duration. Military resources temporarily support and augment, but do not replace local, state, and federal civilian agencies that have primary authority and responsibility for domestic disaster assistance. The employment of military forces has a myriad of legal considerations. Commanders prepare for disaster crisis-management and CM operations by understanding the appropriate laws, policies, and directives that govern employment of the military. Specifically, there are legal considerations that should be considered.

(1) Stafford Act (42 USC 5121). The Stafford Act gives the federal government the authority to respond to disasters and emergencies in order to provide assistance to save lives and protect public health, safety, and property. This assistance requires reimbursement to DOD for the incremental costs of providing support. Approval authority and reporting requirements vary, depending on the duration and type of support requested.

(2) Constitutional Responsibility. The US Constitution allows for the use of the military to execute or enforce the law when necessary to protect federal or civilian property and functions. For example, Limited Military Support to Law Enforcement Agencies (MSLEA) Title 10 USC allows the military to share information and provide equipment, facilities, and other services to law-enforcement agencies (LEAs); however, DOD units must comply with the directions found in DODD 3025.15 before providing support to civil LEAs.

(3) Command Authority. In the event of an emergency or an attack (as described in DODD 3025.1 and DODD 3025.15), a commander may legally assist civil authorities or the public to save lives, prevent human suffering, or mitigate great property

damage under immediate serious conditions before a Presidential declaration of a major disaster or emergency.

b. Federal Response.

(1) When directed to do so, DOD responds to domestic emergencies according to the FRP and any other supporting plans as tasked by the Joint Strategic Capabilities Plan. Coordinated by FEMA, the FRP is the most important of these plans. Along with DOD, 26 other federal agencies provide support when the FRP is fully implemented. The FRP is an umbrella plan to guide federal support to state and local governments. It outlines federal, including DOD, responsibilities and provides the framework for coordinating civil-military requirements.

(2) Following a Presidential declaration of an emergency/a disaster declaration under the provisions of the FRP, the President appoints a federal coordinating officer (FCO) to manage the federal assistance efforts. The defense coordinating officer (DCO) is appointed by the supporting commander in chief (CINC) and serves as the principal DOD point of contact (POC) at the Disaster Field Office (DFO) for providing military support. The commander, US Joint Forces Command (USJFCOM), as the lead operational authority, may task a US Continental Army (First and Fifth US) to conduct planning and coordination for disasters and domestic emergencies as well as to appoint DCOs following a disaster declaration. The DCO supervises the defense coordinating element (DCE) and, at the discretion of the CINC, the DCO may assume control of all federal military units involved in the disaster. However, the severity of an incident could warrant the deployment of the JTF-CS (see paragraph c) to render comprehensive support (see Figure I-2).

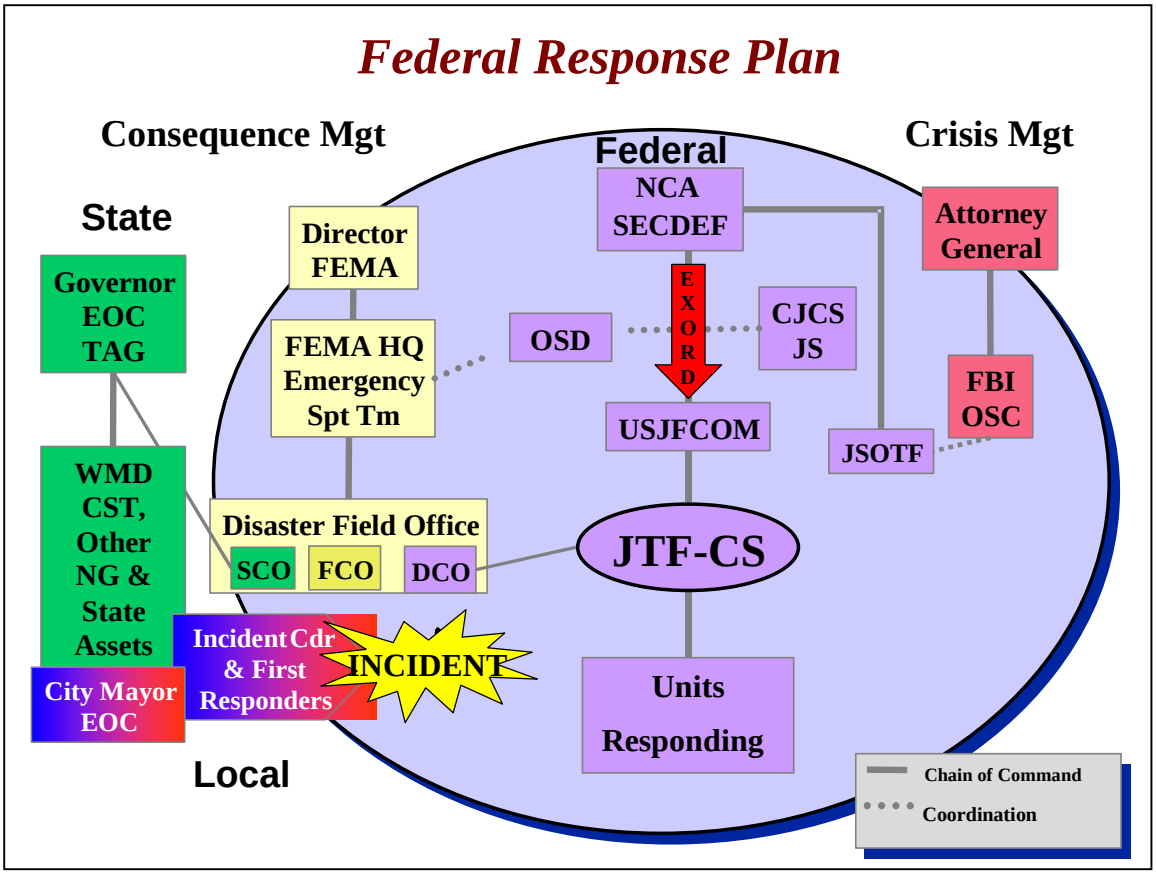

Figure I-2. DOD Response to WMD Incident

c. Joint Task Force-Civil Support. According to the JTF-CS Implementation Plan, approved September 23, 1999, the SECDEF established the JTF-CS to support LFAs in responding to WMD threats, incidents, and national security special events (See Figure I-2). The JTF-CS concept uses a small, permanent staff to execute daily operations involved in shaping, responding, and preparing for DOD's crisis management and CM WMD response. Once the JTF is given an operational tasking to deploy or respond, the small, permanent staff is augmented with trained staff personnel to perform the necessary functions required of a deployed JTF headquarters (see Chapter II for more information on the JTF-CS).

d. Domestic-Support Operations. DSO are generally conducted in three stages: response, recovery, and restoration. The military's primary role is in the response stage. As the operation moves into the final stage (restoration), their role steadily decreases. Response activities by JTF-CS assets will likely focus on those actions to save lives, preserve life and safety, protect property, and prevent further damage to the environment (Response operations are addressed in detail in Chapter IV). Recovery activities begin the process of reestablishing the infrastructure and services. Restoration is a long-term process that eventually returns the community/installation to its predisaster state.

e. CM Planning in Support of Crisis Management. Joint forces may conduct CM planning in support of an LFA during crisis-management operations. Normally, these operations may be conducted in support of the following types of situations:

(1) National Security Special Events. When an event has been designated by the Attorney General and the Secretary of the Treasury as a "national security special event," the LFA's request for DOD assistance goes to the DOD Executive Secretary and, upon SECDEF's approval, joint forces deploy in support of the LFA, as required. During national security special events, such as the 1996 Atlanta, Georgia, Olympic Games, the LFA could be conducting routine surveillance and tracking operations while the JTF staff does generic planning and predictive analysis. If a significant threat is identified, planning and unit alert postures can be adjusted, as necessary. Since this operation is typically well forecasted, the C^2 relationships within DOD will be established before the event. The JFC will be prepared to provide C^2 of all or any portion of DOD forces deployed in support of the event except the JSOTF and the US Army Corps of Engineers (USACE).

NOTE: For more information on JSOTF operations, duties, and responsibilities, see JP 3-05.3.

(2) Short-Notice Events. Should a significant threat be identified, joint forces, when directed by SECDEF, deploy in support of the LFA to plan for CM. The tasks to be accomplished will focus on detailed planning, predictive analysis, and adjusting alert postures for CM units should it be needed. During this mission, the LFA (typically the FBI) will be conducting crisis management operations. Since this operation is typically reactive in nature, any DOD forces deployed in support of CM planning will normally be assigned operational control (OPCON) to the JFC, unless exempted by higher authority.

f. Consequence Management. As with combat operations, planning for CM requires mission analysis and command-estimate processes to clearly define potential threats, including NBC weapons and other toxic materials, and associated vulnerabilities. Further planners (JFC or installation) realize that CM measures could be undertaken for support of domestic or foreign operations. Overall, the purpose of DOD CM operations is to minimize the impact of the incident on a specific area of operations. These CM plans are also visibly and successfully exercised periodically in order to enhance the credibility of US deterrence on potential adversaries. Commanders understand their responsibility to coordinate with applicable civilian authorities and agencies to prevent and, if necessary, mitigate and manage the consequences of deliberate or accidental NBC employment or similar toxic material incidents. This process is aided in the US as detailed interagency processes (contained in documents such as the FRP and/or the National Oil and Hazardous Substances Pollution Contingency Plan) guide the US Armed Forces in providing MACA to such events.

4. Military Role (Foreign Response)

For foreign operations, the DOS and the US ambassador coordinate US activities through the Country Team (see Figure I-3), with US-agency representation (including the DOD) as required in the specific situation. The military chain-of-command from the NCA to the JFC remains in effect, even though a non-DOD agency (i.e., the DOS) may have

overall lead responsibility for NBC-related CM actions. To support the foreign elements, response elements such as the JTAC or FEST (composed of specialized personnel) are available to US force commanders for assistance in conducting CM actions to mitigate and manage the consequences of an NBC attack or other toxic-material contamination. Foreign CM operations can be designed around five basic phases: situation assessment and preparation, immediate assistance, extended operations, disengagement/handover, and redeployment.

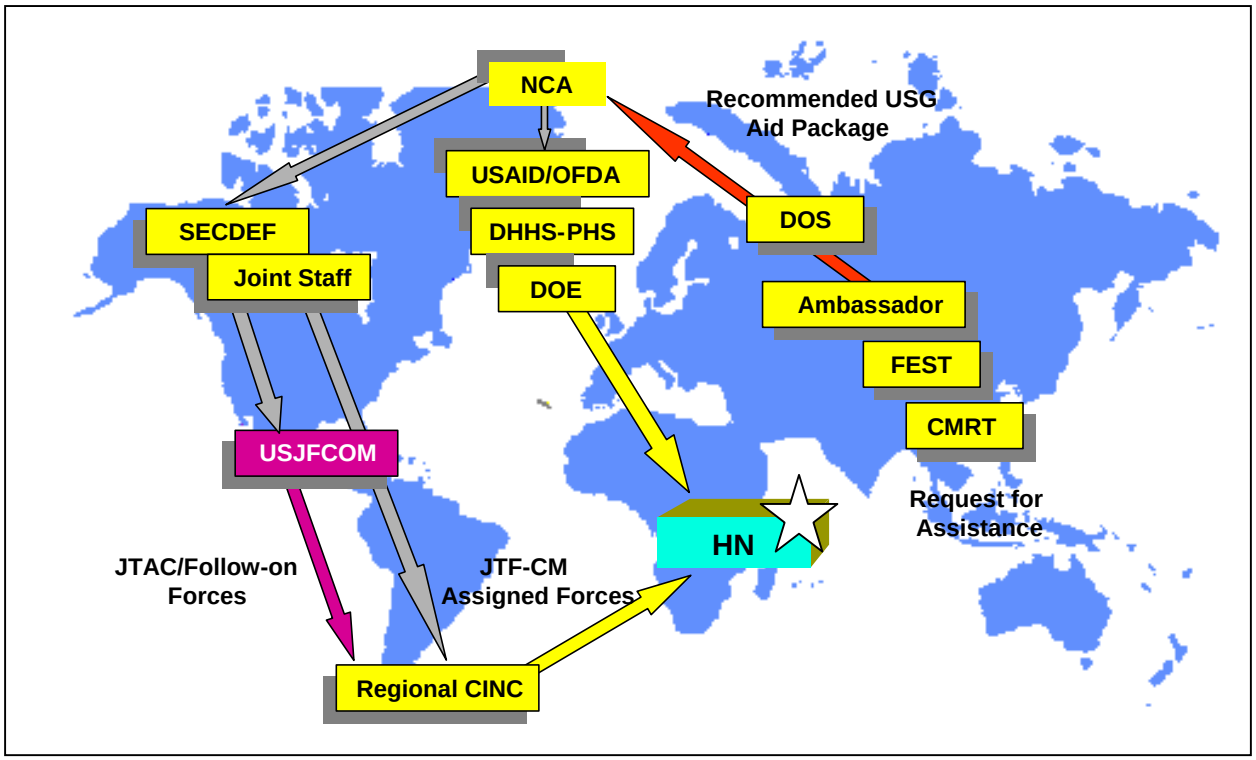

Figure I-3. CM Foreign Response

a. Phase 1, Situation Assessment and Preparation. Actions during this phase could include—

(1) Determining the incident type.

(2) Conducting a mission analysis and the activation of the C^2 structure and/or CM assets for an immediate response.

(3) Determining the availability of combatant command theater and continental US (CONUS)-based assets.

(4) Determining the adequacy of existing HN plans to resolve WMD incidents and the status of HN, allied, international, and nongovernmental assets responding to the incident.

(5) Determining the status and the availability of required movement assets.

(6) Conducting necessary medical preparation of US forces and perform initial disease and environmental health threat assessments on deploying forces and the local civilian population.

(7) Preparing initial public-affairs (PA) guidance and plan formulation.

(8) Identifying deficiencies in the status of forces agreements (SOFA) that provide for the protection of US personnel.

(9) Identifying and preparing the required forces for deployment. Establishing liaison with HN and allied/coalition assets.

b. Phase 2, Immediate Assistance. Actions during this phase could include—

(1) Deploying the required forces.

(2) Preparing to assume responsibility for the transportation of a recovered weapon to a point of disposition.

(3) Assisting HN forces in isolating the incident area.

(4) Collecting and analyzing samples.

(5) Determining the downwind/fallout hazard.

(6) Assisting HN forces in evacuating civilians from the incident site and the surrounding area to facilitate operations.

(7) Providing security for relief personnel and facilities involved in the incident response.

(8) Providing advice and assistance to local medical authorities. Assist the HN in monitoring disease/injury trends (epidemiological surveillance) and in performing disease and environmental health threat assessments.

(9) Assisting HN forces in conducting triage and providing emergency medical treatment for initial casualties.

(10) Assisting HN forces in providing mortuary support.

(11) Assisting with search-and-rescue (SAR) operations.

(12) Assisting with fire-fighting operations.

(13) Assisting the HN in decontaminating personnel, equipment, and facilities involved in initial-response operations.

(14) Assisting HN forces in initiating a public information campaign to provide necessary information to affected civilians, as well as global and regional media.

(15) Establishing a Civil-Military Operations Center (CMOC) to coordinate military operations with the civilian response effort.

c. Phase 3, Extended CM Operations. Actions during this phase could include—

(1) Continuing to assist the HN in isolating the incident area.

(2) Being prepared to receive additional forces based on the NCA's decision and the severity of the incident. The geographic combatant command's initial response force will assume control of follow-on DOD forces and deployed military assets.

(3) Assisting the HN in establishing displaced civilian centers (DCCs) with adequate shelter and food for civilians affected by the incident area.

(4) Assisting HN forces with mortuary affairs and casualty recovery, classification, and processing.

(5) Assisting in the removal and the disposal of contaminated debris.

(6) Assisting in infrastructure repair.

(7) Assisting the HN with reconstruction efforts to minimize long-term disruption to the civilian population.

(8) Assisting HN forces in decontaminating US, HN, and allied personnel and equipment engaged in CM operations.

(9) Continuing to assist the HN with PA and psychological-operations campaigns.

d. Phase 4, Disengagement and Handover. Based on NCA guidance, hand off operations to HN forces to complete the CM mission.

e. Phase 5, Redeployment. CM forces redeploy according to applicable command guidance.

5. Response Measures

The US military uses the NBC defense principles of contamination avoidance, protection, and decontamination to support civil authorities during CM operations. These principles help the military response elements facilitate a standard response to an incident.

a. Contamination Avoidance. Measures such as detection, warning, and contamination control can be undertaken to support a military response. (See Appendix A for further information on contamination-avoidance measures). During peacetime, units

undertake selected measures (i.e., vulnerability reduction measures, drills and exercises to support crisis-management and CM preparation, etc.) to maintain readiness. These actions are generally taken as part of an integrated approach to exercise established programs/plans. These preparedness actions can take many forms. Possible measures could include—

(1) Conducting assessments of vulnerabilities that could compromise preparedness given the potential threat against various targets, military, and/or civilians.

(2) Performing assessments of the threat. Commanders also assess the criticality of key infrastructures that are essential for functions such as staging and deploying operations.

(3) Exercising antiterrorism/force-protection (AT/FP) plans to provide a maximum deterrent effect on potential adversaries. Commanders also coordinate with civilian authorities and agencies to ensure that applicable measures such as Mutual Aid Agreements are in place to ensure a fully coordinated response.

(4) Accomplishing key measures to further reduce vulnerability through: enforcing operational security; maintaining emergency response plans; ensuring that FP capabilities and redundancy in capability are identified; maintaining NBC defense equipment; conducting joint and interagency planning (i.e., coordinating with FEMA and DOS); and conducting assessments to ensure that response elements (active and reserve components) are properly trained and/or certified for crisis-management or CM operations.

b. Protection. NBC protection conserves capability by providing individual and collective-protection. Protective measures are further discussed in Appendix B.

(1) Individual protective measures can include the use of individual protective equipment (IPE) (protective masks and clothing), medical prophylaxis, pretreatment, antidotes, or other medical treatments. For example, wearing a properly fitted protective mask provides respiratory tract protection, and wearing the protective ensemble provides virtually complete protection against a biological aerosol attack. Some other protective measures may include the use of field expedients. In summary, essential individual protective guidance involves two basic elements: adhering to the levels of protection established at the incident site and respecting the boundaries that establish control zones to minimize or preclude exposure to contaminants.

(2) Collective protection will likely not be used for support of CM operations because activities such as the incident command (IC) will be positioned outside the hazardous areas. Select locations (i.e., high-value C^2 facilities) may use collective protective equipment as a norm, or preincident planning (before a National Security Event) may result in the use of collective protective equipment. However, IPE will be the primary means of protection in contaminated areas. Available collective protective equipment does provide a toxic-free area (TFA) for conducting operations and performing life-support functions such as eating and resting. Contamination transfer into the TFA could compromise the health and safety of all occupants and jeopardize their ability to support the mission. When collective protection is not available, building occupants gain limited protection by closing all windows and doors; turning off air-handling systems; and moving

to closed, inner rooms. With advanced warning, occupants can increase protection by sealing windows, doors, and openings although the building or space may quickly become uninhabitable without cooling or ventilation.

c. Decontamination. Decontamination (or decon) operations support the postattack restoration of forces and operations to a near-normal capability. As forces don NBC protective equipment, mission degradation will occur. This degradation continues until forces can resume operations without wearing IPE. Decon can help minimize the time that forces/response personnel are in protective equipment by reducing, neutralizing, or destroying NBC hazards on personnel and mission-essential resources. Since decon actions are labor intense and assets are limited, commanders must prioritize decon requirements and decontaminate only what is necessary. Commanders may choose to defer decontamination of some items, and depending on the agent type and weather conditions, to defer the use of equipment and/or allow natural weathering effects (temperature, wind, and sunlight) to reduce hazards. Further, the extent and time required for decontamination depends on the situation, mission, and degree of contamination. Decontamination measures are further discussed in Appendix C.